

We claim:

1. A process for arbitrating between active and protected status, comprising the steps of
  - identifying a plurality of cards capable of communicating with each other,
  - 5 allowing each card to make a determination of the health of another one of the cards,
  - allowing each card to deliver to another of the cards a vote representative of the respective cards determination of the health of the other card, and
  - 10 having a respective card determine as a function of delivered votes a health status representative of whether the card is to be isolated.
2. A process according to claim 2, wherein determining as a function of delivered votes includes determining as a function of a majority of votes.
3. A process according to claim 1, wherein
  - 15 determining as a function of delivered votes includes determining as a function of a plurality of votes.
4. A process according to claim 1, further comprising
  - isolating a card as a function of delivered votes.
5. A process according to claim 1, wherein making a determination of the health of a card includes measuring response time, identifying a parity error, identifying a check sum
  - 20 error, and identifying a failure to respond to a command.
6. A process according to claim 4, wherein isolating a card includes entering a state that prevents the card from exchanging data.
7. A processing according to claim 4, wherein isolating a card includes disabling a hardware interface to an external system bus.

8. A processing according to claim 1, further comprising a self-diagnostic test for having a card monitor local parameters to determine a health status for the respective card.
9. A process according to claim 7, further comprising  
determining an isolation state in response to the self-diagnostic test.
- 5 10. A process according to claim 7, wherein the self-diagnostic test includes monitoring a heartbeat timer.
11. A process according to claim 1, further comprising the step of  
monitoring a control signal representative of an instruction to adjust between a protection state and an active state.
- 10 12. A system for arbitrating between an active state and a protected state, comprising  
a plurality of devices capable of exchanging data,  
a card monitor for monitoring parameters of other cards in the system representative of operating characteristics,  
15 a vote out mechanism, responsive to the monitored parameters, for generating a vote signal representative of an assessment of a card's operating condition, and  
a vote tally mechanism, responsive to vote signals received from card in the system, and capable of changing an operational state of card in response thereto.
13. A system according to claim 1, wherein the vote tally mechanism includes  
20 a processor for detecting a majority vote with vote signals received.
14. A system according to claim 1, comprising  
an isolation processor for isolating the card as a function of delivered votes.
15. A system according to claim 1, wherein  
the card monitor includes means for measuring a response time of a card.

16. A system according to claim 1, wherein

the card monitor includes means for detecting an error in a data signal received from a card.

17. A system according to claim 1, further comprising

5 a lock circuit for requiring a processor to perform a series of predetermined operations to gain access to a memory location.

18. A system according to claim 1, further comprising

a self-diagnostic process for testing local parameters representative of local status.

10 19. A system according to claim 19, wherein

the self-diagnostic process includes means for altering a state of the card.

20. A system according to claim 19, wherein

the self-diagnostic process includes means for driving a card into an isolation state.

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